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**WO 2003/089571 A3**

(54) Title: **EHRLICHIA CANIS GENES AND VACCINES**

(57) Abstract: This invention provides the sequence of 5,299 nucleotides from the *E.canis* genome. There are four proteins, ProA, ProB, MmpA, and a cytochrome oxidase homolog, as well as a partial lipoprotein signal peptidase homolog at the carboxy terminus, coded for in this cloned fragment. The antigenic properties of these proteins allow them to be used to create a vaccine. An embodiment of this invention includes the creation of a DNA vaccine, a recombinant vaccine, and a T cell epitope vaccine. Another embodiment of this invention includes the use of serological diagnosis techniques.

**INTERNATIONAL SEARCH REPORT**

International application No.

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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC(7) : A61K 31/70; C07H 21/02  
US CL : 536/23.4; 514/44

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 536/23.4; 514/44

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
provisional application

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
STIC sequence search, Medline, EAST

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	Database NCBI, Accession Number AX077837, CHANG, Y.F. 22 February 2001.	1-23
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Y		24-68
X	WO 01/07625 A2 (CORNELL RESEARCH FOUNDATION, INC.) 01 February 2001 (01.02.2001), see entire reference.	1-68
Y	OGASWARA et al. A strategy for making synthetic peptide vaccines. PNAS. Vol. 89, pages 8995-8999, October 1992, see entire reference.	1-68
Y	CHANG et al. Specific Amplification of Ehrlichia platys DNA from blood specimens by two-step PCR. J. Clin Micro. December 1996, Vol. 34, No. 12, pages 3142-3146, see entire reference.	1-68

<input type="checkbox"/>	Further documents are listed in the continuation of Box C.	<input type="checkbox"/>	See patent family annex.
*	Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A"	document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O"	document referring to an oral disclosure, use, exhibition or other means		
"P"	document published prior to the international filing date but later than the priority date claimed		

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